ORIGINAL

Sauget Area 1 Superfund Site

Meeting

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JENSEN REPORTING
180 N. LaSalle Street
Suite 2800
Chicago, IL 60601
Phone, (312) 236-6936
Fax, (312) 236-6968
www.jensenreporting.com

U.S. Environmental Protection Agency

Community Involvement Meeting

for

Sauget Area 1 and Area 2 Superfund Sites

Villages of Sauget and Cahokia,

St. Clair County, Illinois

March 5, 2013

A Community Involvement Meeting was held at the offices of the Cahokia Village Hall, 103 Main Street, in the Village of Cahokia, State of Illinois, on the 5th day of March, 2013 which was recorded by means of machine shorthand and hereto transcribed by Mary L. Peppenhorst, Missouri Certified Court Reporter (No. 545), Illinois Certified Shorthand Reporter (IL #084-003856), Registered Professional Reporter (#804416) and Notary Public.

APPEARANCES:

FOR THE EPA:

Ms. Patricia Krause
Community Involvement Coordinator

Ms. Stephanie Linebaugh
Remedial Project Manager

Mr. Paul Lake
Illinois EPA

Ms. Lisa Condiff
Mr. Phil Smith
Mr. Barry Selco
CH2M Hill

(On the record at 6:35 p.m.)

MS. KRAUSE: Hello. Thank you for coming out tonight and we look forward to presenting and to hearing from you. U.S. Environmental Protection Agency's presentation will share details about the recommended cleanup plan for the Sauget area one superfund site. You will have the opportunity to formally make a comment or ask a question. We have a transcriber here to take your comments and questions. During this public hearing part we don't necessarily respond to the questions or the comments. At the end of the comment period which now is March 28th the EPA will prepare a written statement, written summary, of significant comments and any new, relevant information given along with EPA's response to each issue. We'll do a presentation -- for today we'll do the presentation. We'll take some questions. We'll have a short break right after the question part and then we'll start the actual public hearing where you will ask your questions and Mary, the transcriber, will have it on the record and then we'll compile all the questions. Now -- all the questions and comments. And all the

questions and comments from here and also if you all got a fact sheet there was comment paper in there that you could write a comment and mail it back to us or you could go on the Internet and there's a public comment form. So we try to make it as easy as possible. My e-mail is on the fact sheet if you want to e-mail me about anything, you know, that would be fine or Stephanie. So for introductions I'm Patricia Krause, I work as a community contact or community involvement coordinator for the US EPA. Stephanie Linebaugh is EPA's project manager for the Sauget area one site and she will talk about the site and explain EPA's proposed cleanup plan.

We have Tom Martin here. He's our regional counsel in region five. And we also have a number of people from the EPA and I believe Stephanie is going to -- Illinois EPA and I believe Stephanie is going to introduce them. So now Stephanie will present but when it's your turn, if you want to make your public comments, I'll call out your name -- I don't have the list, I'm sorry, I'm confused. You can come up and state your first and last name and what organization you're affiliated with when you make your comments. So Stephanie I'll -- Thank you.

BY MS. LINEBAUGH:

Thank you Patty. Hello. Thank you so much for coming this evening. As Patty said I'm Stephanie Linebaugh. I'm the EPA project manager for the site and I'm going to give you a presentation on EPA's proposed plan for the Sauget area one site. Can everyone see the screen okay? I don't know if it's too light. We'll do quick introductions. As Patty said there's some Illinois EPA people here as well as EPA contractors. I'll go through you the presentation for the proposed plan, we'll answer some questions, we'll take a short break as Patty stated, and then we'll open it up for the hearing comments. Again, I'm Stephanie Linebaugh, the EPA project manager. Patty Krause is EPA community involvement Coordinator. Tom Martin is the EPA site attorney. Lisa Condiff is with CH2M Hill. She is EPA's oversight contractor, site manager. Phil Smith is also with CH2M Hill as the EPA's oversight contractor, as is Barry Selco who is again, one of EPA's oversight contractors and also our risk assessor. With Illinois EPA is Paul Lake who is the Illinois EPA project manager. This is -- can you maybe adjust the lighting? Is that better?

Okay. Okay.

Again, this is just an overview of the site and the site is located in both Sauget and Cahokia, Illinois and it contains several parcels which I'll identify in more detail. Little bit of a site history. The site consists of three closed waste disposal facilities. Site G -- There's three disposal facilities. There's Sites G which is just off Queeny Avenue and this is Route 3 -- G, H and I. There's a former backfill impoundment which is Site L. Site M is a former borrow pit which used to be hydraulically connected to the Dead Creek. And a closed construction debris site, Site N. And it also consists of approximately 3.2-miles of Dead Creek which extends further south and goes off the map.

This is just an overview of -- you can see the entire site here, Dead Creek, borrow pit lake. And a couple other things to point out here on this you can see that the site is approximately about a mile from the Mississippi River close to the Krummrich facility and this is also another superfund site in between the two.

Contamination history: A variety of

industrial municipal waste and containment soils were present at the enclosed disposal waste areas. Disposal areas contain crushed drums, uncontained waste, construction debris and miscellaneous trash. Contaminants include a variety of volatile and semi-volatile compounds such as chlorobenzene, benzene, PCBs, dioxins and metals.

There's been a lot of work done over the years on the site towards cleaning up. Starting in the early 90s, in 1990 creek segment 8, access A which is located on the Cerro flow property. That was remediated through an order with the Illinois EPA that required the PRPs to clean up this area of segment A.

From '94 to 95 EPA did a removal action on site G here. There was some instantaneous combustion on the surface of the site that caused EPA to come out, address that. We did some waste consolidation and cover of site G, a part of site G. In 1999 there was another removal action where EPA ordered the responsible parties to replace two culverts in Dead Creek.

And then in 1999 EPA ordered responsible parties to do the remedial investigation and

feasibility study. Which the remedial investigation is the investigation to determine the nature and extent of the contamination site. In '99 to 2000 initial work on the remedial investigation started with extensive site investigation. And then there was another removal action in that 2000 that was completed in 2008 that required the PRPs, the responsible parties, to address and excavate sediments of Dead Creek as well as creek bottom soils. Also during that removal action they were required to construct a containment cell and that containment cell is located right here behind Site G just off Judith Lane. That's where they disposed of the sediments and the creek bottom soils from Dead Creek.

From 2002 to 2007 the responsible parties were required to do supplemental and followup investigations for the remedial investigation to determine again the nature and extent of the contamination site. This remedial investigation and feasibility study was completed and finalized in report this past November of 2012.

Just a quick overview of the removal action along Dead Creek. Again, I said that there were

sediments and the creek bottom soils were excavated from the creek. Approximately 53,000 cubic yards of sediments were removed and then an additional 5,000 cubic yards of creek bottom soils.

For a quick summary of the investigation results due to the remedial investigation there were containment source areas identified. Those included the disposal areas at site G, H and I South. And this is Queeny Avenue here (indicating). This the Falling Springs Road (indicating). There's some residual dense nonaqueous phase liquid or we call it DNAPL in ground water in the lion portions of the site at G, H and I South which are also continuing sources of contamination.

Site I South there is an area where there is pools of this DNAPL which is kind of like presolvent in the ground water that's been identified there. They've actually been pumping this DNAPL for the past few years. Along Queeny Avenue between sites I South and H underneath the road there is a corridor where there's heavily contaminated soils that are contaminated with PCBs and dioxins. And I wanted to point out on site I North and Site N those areas were not identified as contaminant source areas.

We did a human health risk assessment, actually there was a couple, and evaluated residents, trespassers, recreational users, industrial workers, construction workers and utility workers. They were evaluated for potential exposures to soils, waste, ground water, surface water and sediments. And Benezene, chlorobenzene, PCBs and dioxins were some of the primary contaminants of concern risk drivers.

Sites with no potential human health risk were Site I North, Site M, Site N, the flood plain soils along Dead Creek, Dead Creek and borrow pit lake. Sites with potential risks were sites G, H, I South and L. We also looked at the ecological risk assessments. Potential ecological habitat areas were evaluated. We looked at the flood plain soils along Dead Creek, surface water, sediments associated with Dead Creek and borrow pit lake and potential impact, sufficient wildlife after the completion of the 2001 Dead Creek removal action. There were no economical risks identified.

Now I'll go in to just -- this is a quick summary overviewing the five alternatives that EPA evaluated or that were evaluated in the feasibility

study. And as you can see there's everywhere from no action up to more substantial alternatives that have more elements and components. You'll see that several of them have similar components in each alternative and I'll go over each one in more detail.

Alternative 1 no action and EPA always includes a no action alternative for comparison. It's kind of our baseline. No action. Zero cost.

Alternative 2 is just the containment cell operation and maintenance. And the containment cell again is the containment cell that was constructed during the removal action in which we placed the sediments and creek bottom soils from Dead Creek. A monitoring well network to monitor ground water and institutional controls for Sites G, H, I South and L and institutional controls can consist of anything from fencing to deep restriction. It's to limit access to the sites. Estimated construction time and cost, this alternative is estimated around $3.1 million and estimate to take 3-6 months to implement.

Alternative 3 consists of all the elements I just described in Alternative 2. Plus, it's going

to include or it includes the full DNAPL recovery that I mentioned at site I South. It includes RCRA super C caps at sites G, H and I South and L. And for G west an asphalt pavement. And then utility relocations along the Queeny Avenue between Sites I South and H. And the estimated construction time and cost is $12.8 million and about one year to implement. And as I pointed out before, you would have the subtitle caps that you can see over sites -- the areas in yellow, sites G, H, I South and L. And just to give you an idea when I speak of a RCRA Subtitle C Cap, I'm speaking of a multi-layer, low permeability cover consists of -- here's a cross section where it shows 24 inches of clay. Then you also have like another liner and drainage and cover like this.

Alternative 4 includes all the elements of alternative 3 which I just discussed as well as in addition it would include leachate control for sites G, H and I South. Estimated time and construction cost for Alternative 4 is $22.5 million and estimated time to implement is approximately a year.

This is just to point out where the leachate control -- this is points G, H and I South. The

dots would be the wells we would place in there to control the leachate from the site.

Now Alternative 5 includes all the elements of alternative 2 which I mentioned previously. Plus for alternative 5 it includes pulsed air biosparging of the NAPL areas at sites G, H and I South. Under G, H and I South down below there is the DNAPL residual down towards bedrock where we would put in the biosparge wells to introduce air so that it cannot degrade contaminants making them less toxic.

This alternative also includes the full DNAPL recovery at site I South and it would include the 724 compliant soil or crushed rock caps at sites G, H, I South and L. The estimated cost is $14.8 million and time to implement is approximately one year.

And just to clarify, when I mentioned the time to implement, I should have clarified it as the time to implement construction. Actual implementation of the full remedy would take longer than a year.

And this is just to give you an idea of the network of the biosparge well to be placed at sites G, H and I South.

In evaluating alternatives for the site EPA has to evaluate the nine superfund criteria which includes two threshold criteria of overall protection of human health and environment and compliance with federal, state ARARs or applicable and relevant and appropriate requirements. There are five balancing criteria: Long term effectiveness and performance -- or permanent, excuse me -- reduction of toxicity, mobility or volume through treatment, short term effectiveness, implement ability and cost. And then there's two modifying criteria which is state acceptance and community acceptance.

This is a summary evaluating nine criteria against the five alternatives. And as you can see, Alternative 1 which is the no action it does not meet the criteria -- 9 criteria. Alternative 2 there's some partial, partially meets the criteria but overall it does not meet the criteria so alternative 2 was not further evaluated. So we looked further at alternatives 3, 4 and 5. Between alternatives 3, 4 and 5, alternative 3 did not meet the criteria for reducing toxicity, mobility or volume through treatment. And alternatives 4 and 5

did meet all the criteria and partially met the criteria for reducing toxicity, mobility and volume through treatment.

I want to point out a difference between alternatives 4 and 5 is that alternative 5 reduces the greatest mass of contaminants through treatment which is pulsed air biosparging and that was one of the greatest differences between alternatives 4 and 5.

So, again, this is just an overview of the 5 alternatives I just mentioned. And alternative 5 is EPA's preferred alternative. EPA's recommending alternative 5. It's protective of human health and environment. It meets the state and federal regulations of our ARARs, implementable. It reduces toxicity, mobility or volume through treatment and provides long term and short term effectiveness and it's supported by the state of Illinois.

So the next steps, we're here tonight cause we're presenting the proposed plan for cleanup of the site and we're issuing a 30-day comment period which began February 27th and runs through March 28th. The next step after the comment period EPA will issue a record of decision documenting the

selected remedy. It will contain also a responsive summary responding to all the public comments. After that it's estimated that in 2014 we would complete the remedial design and then in 2015 the implementation of the remedial action and then reviews are initiated five years after the start of remedial action of the site.

As I mentioned, 30-day comment period has started. It started on February 27th, runs through March 28th. There are documents for review available online in the Sauget Area 1 superfund site, website, as well as the Cahokia public library and at EPA region five record center.

As stated in the -- if you all got a copy of the fact sheet and proposed plan, please send your comments to Patty Krause and her address is included in the handouts. And so now --

MS. KRAUSE: Yeah. Questions, you know, general questions about the public comment period. If you have any questions before we go into the actual public hearing cause the public hearing is when we compile everything and then we have to respond to them at the end of it through the --

MS. LINEBAUGH: Responsive summary.

MS. KRAUSE: -- responsive summary. So if anyone has any questions.

AUDIENCE MEMBER: Yes. I wanted to make sure because I want my questions to have answers and they relate to what you -- what you do because we need the answers in order to prepare the public comment. First of all, I wanted your chemicals of concern include Benezene, chlorobenzene, daalder, which I don't know what it is, NAPL, PCBs and Dioxin yet your public notice did not mention any of these chemicals and referred to just contaminated soil and tar like liquids and I was wondering why.

MS. LINEBAUGH: There was a huge amount of different contaminants at the site. The Benzene, chlorobenzene, PCBs and dioxins were the primary ones with the more toxic that were the risk drivers but there were numerous other ones that were also looked at. The tar like substance that's spoken about in the fact sheet is the DNAPL, dense nonaqueous phase liquid that I just mentioned.

AUDIENCE MEMBER: What are the different contaminants that are included in the DNAPL?

MS. LINEBAUGH: It's primarily the chlorobenzene.

AUDIENCE MEMBER: Shouldn't the public, shouldn't they know that because if they read the public notice in the Belleville paper they don't know to be concerned about Benzene or Dioxin or anything if they just read tar like stuff in ground water.

MS. LINEBAUGH: Well, there's also a proposed plan that's more detailed that I believe you have a copy of too that has more information. What was mailed out was more of a simplified fact sheet.

MS. KRAUSE: Yeah. It was mailed out and it's more of a simplified fact sheet to just share details of what's being done. But the actual full length proposed plan is on the website and you can access it. In fact, I think I brought a copy of it here too.

AUDIENCE MEMBER: I'm confused about how many different sites there are. I mean, they're labeled with letters and there's area one and area two and there's a CERCLA site and a RCRA site. Could you tell us how many total sites there are and how they relate to each other?

MS. LINEBAUGH: I can. Well, I can do my

best. It is somewhat complicated. I mean the site has been around for a number of years but the letter usage for each site it began I think with the state of Illinois naming it back in the early nineties with the creek. The creek was broken into different segments A through F and once we went through A through F then the next site was G, H, I -- L, M and N. I don't recall J.

AUDIENCE MEMBER: There's some letters that are missing and I was wondering if there was a site that was named that at one time and it just disappeared or was cleaned up.

MS. LINEBAUGH: Honestly, I don't recall a K or a J.

AUDIENCE MEMBER: They were probably investigation --

MS. LINEBAUGH: They might have been investigated early on like in site investigation and then determined not to have any issues. It's possible. I can look in to that question. But just to also clarify you mentioned -- just to clarify, you also mentioned that there was a CERCLA site and a RCRA site. The one with the big black loop that's the Sauget area one site and all the parties. The

green is the RCRA site which is the Krummrich facility. And this kind of aqua color is the Sauget area two site which is separate from area one. So there's two superfund sites and one RCRA facility.

AUDIENCE MEMBER: What are the ARARs? It was referred to in the plan and I looked it up on the EPA website but I don't understand how it applies to the site?

MS. LINEBAUGH: Well, one of our threshold criteria is meeting the ARARs, which is just the appropriate and -- applicable or relevant and appropriate requirements.

AUDIENCE MEMBER: Again?

MS. LINEBAUGH: Applicable or relevant and appropriate. It's one of our -- they're federal and state requirements. I mean there's a big list that we included and evaluated in the feasibility study. I can get you the full list if you'd like. That's available. The feasibility is available in the Cahokia library as well.

AUDIENCE MEMBER: Is that specific to a site or is that generic for the whole country?

MS. LINEBAUGH: We evaluated those for each site. Not -- each site like each lettered site, not

the site as a whole.

AUDIENCE MEMBER: Could you explain the pulsed air biosparging? It's a little confusing to me. I don't understand it. And you say in your plan that three has -- it might not be appropriate so in five if you discovered that it's not, then you would go use 3 would be your recommended but I don't know what it means and I don't know why it might not be appropriate.

MS. LINEBAUGH: So your question for alternative 5 which includes the pulsed air biosparging which one of the largest ongoing sources is below sites G, H and I deep in the bedrock. There's this DNAPL residual and the best way to treat that is by aerobic degradation. So we're going to install wells to force air down there to help degrade the contaminants and make them less toxic. What you brought up is that alternative 5 is our preferred alternative. With the pulsed air biosparging they're going to do a pilot study to make certain that this will work. If the pilot study is effective they'll fully implement the pulsed air biosparging throughout the site. If it's not effective, then the alternative would be

alternative 3 which is just caps, the full caps over -- the RCRA Subtitle C caps over sites G, H and I South and L.

AUDIENCE MEMBER: You said south?

AUDIENCE MEMBER: What chemicals are generated by the system? These are emitted into the atmosphere, right?

MS. LINEBAUGH: Yeah. I'm going to have Phil Smith who is the consultant --

MR. SMITH: Yeah. We work for EPA. What goes on with biosparging is we're actually injecting air which you know is 20% oxygen. The oxygen then dissolves into the ground water. And then the contaminants in the ground water, the bacteria start using an aerobic process using the oxygen to break down those contaminants. It's predominantly Chlorobenzene and 1, 4-Dichlorobenzene. They're the big players. They're the main mass of contaminant that is moving in the ground water. So we want to go into those source areas, the DNAPL area, that's a substantial area, that's saturated throughout the entire water table all the way down to the bedrock. So if we pulse air into there, that will dissolve the ground water. The ground water will move

through the aquifer, through the soil where that contaminant is and the bacteria and it will start basically eating, biodegrade it down to carbon dioxide and water and chloride.

AUDIENCE MEMBER: Does that get in to the -- you called it a DNAPL, the tar like substance, right? Are you treating just the contaminants and the ground water.

MR. SMITH: It will treat them both. The beauty of the way it works is that you go after the dissolved phase first, right, the DNAPL. That's the solvent exists in a pure phase but it's constantly dissolving with the water according to its solubility and concentration. So insolubilized new water, the bacteria then eats the dissolved portion and more dissolves off of the pure phase the DNAPL.

AUDIENCE MEMBER: So it's not going directly after the tar like substance?

MR. SMITH: That's what we're hoping it will do. Obviously, we have to do a pilot test and try it out in a small area. And it takes a considerable amount of time, it will take six or nine months before the bacteria grow the population big enough to really do the good biodegradation work. That's

the uncertain part that Stephanie mentioned and we have a contingency in case it doesn't work.

AUDIENCE MEMBER: How do you measure the effectiveness?

MR. SMITH: We'll be setting -- there's a whole -- if you go to one of the websites the feasibility has an appendix that talks about -- actually has a plan already set in place for a pilot test and it details it out. Basically, we're going to go in sparge in there at 3 different levels and then put in monitoring points at certain distances within a certain radius out in a couple of directions and then see, you know, I don't remember exactly, but say it's 15 or 30 feet away how you measure concentrations before we turn it on we measure at one month, three months, six months to see how it's doing.

AUDIENCE MEMBER: You won't be able to measure exactly how the tar like substance is quote dissolving though?

MR. SMITH: We can go back and do that too. We can take soil samples and compare before and after.

AUDIENCE MEMBER: I thought the tar like

substance was in the rock?

MR. SMITH: That's a different issue. There is a small area, Site I, that has it in the rock, we're going to pump that out. But most of this contaminant mass is actually in the sand and soils down below bedrock so that's really where they're going.

AUDIENCE MEMBER: You referred in your plan to investigations that were done by the PRPs and disposal areas downgrade in ground water, surface water, air and soil and then later supplemental relating to principle threat waste, treatability of DNAPL and ground water, et cetera, et cetera. The results of all the studies were evaluated and compiled into the final RIFS report. And then you said that you also did -- EPA also conducted its own investigations in some areas during this period. And I would like to know which investigations were done by EPA and was there ever a discrepancy between what EPA found in the PRPs?

MS. LINEBAUGH: I don't --

MR. SMITH: EPA did a number of test digging within the sites.

AUDIENCE MEMBER: I'm sorry?

MS. LINEBAUGH: We did do some test digging or trenching.

MR. SMITH: Test digging is basically digging a trench, taking soil samples and recording what you're seeing. So it was more trying to identify the waste present. So I don't recall precisely what it found other than yeah, there's waste down there and a lot of chemicals in there.

MR. MARTIN: I think that we were trying to identify the exact amount.

MR. SMITH: That's probably, yeah.

AUDIENCE MEMBER: Was there ever discrepancy in what they reported and what you found?

MR. MARTIN: I don't think that would be the -- if we're trying to find a boundary, realize that when the industry is going out there with their consultants to take samples we always -- my company represents US EPA. We have somebody on site simultaneously and we will take split samples, we will be observing, so whatever they see we see. So there shouldn't be any discrepancies.

MS. LINEBAUGH: There's EPA oversight during their work.

AUDIENCE MEMBER: What are all of the

chemicals of concern that are considered DNAPL?

MS. LINEBAUGH: I'm sorry?

AUDIENCE MEMBER: What are the constituents that are present that are considered DNAPLs?

MS. LINEBAUGH: Well, the chemicals in the DNAPL?

AUDIENCE MEMBER: Right.

MS. LINEBAUGH: It's the chlorobenzene and 1,4-Dichlorobenzene.

AUDIENCE MEMBER: I have other questions if you want to take a break for someone else to ask questions.

MS. LINEBAUGH: I think this gentleman has a question.

AUDIENCE MEMBER: The PRPs they get to vote on this or they have to accept what you guys decide and what the community puts in?

MS. LINEBAUGH: They can provide comments during the comment period as well and then we respond to their comments too.

AUDIENCE MEMBER: They don't get a vote?

MS. LINEBAUGH: They don't get a vote, no. They just get a time to comment but they don't make a decision.

AUDIENCE MEMBER: Thank you.

AUDIENCE MEMBER: You mentioned in the handout that there was -- that the Dead Creek cleanup was completed and the final report was issued in 2010. Is that report on the website?

MS. LINEBAUGH: It's final. It should be on the website.

MS. KRAUSE: It's on the website. There's a fact sheet and I think there's also a link to the report. So I mean pretty sure, yeah.

AUDIENCE MEMBER: And the cleanup of Dead Creek is that also the case with respect to Borrow Pit Lake?

MS. LINEBAUGH: Yeah. That's the same time.

AUDIENCE MEMBER: Okay.

MS. LINEBAUGH: Okay. Any other questions?

AUDIENCE MEMBER: I spoke to you and spoke to Ken Bordeau who's with the RCRA site, right?

MS. LINEBAUGH: Correct.

AUDIENCE MEMBER: He said due to IDOT pumping that there had been contaminants from Sauget drawn up into the ground water in East St. Louis and I was wondering if you've evaluated how the pumping of ground water either by IDOT or in conjunction

with the proposed groundwater comes for the relief wells for the Southwestern Illinois Levy project will impact the contaminants including the DNAPLs?

MS. LINEBAUGH: The IDOT wells are located in this direction (indicating). When they're pumping they're pulling the main ground plume from area one and the Krummrich site, kind of comes in this direction towards the river. The pumping does cause it to come in this direction (indicating). We do have a regional groundwater model that we had PRPs performed. We had run that model last year based on IDOT's pumping and turning those wells back on. So based on that and working with Ken cause a lot of it pertains to the Krummrich facility and not the CERCLA site I know Ken is working with --

AUDIENCE MEMBER: Last year was record lows. I mean historic lows so that would not reflect really serious pumping by IDOT in 2012. But in 2011 there were record highs, I mean through -- I think there were -- it was at flood stage several months of the year, at or above flood stage. So wouldn't that -- I mean wouldn't your results be faulty for 2012?

MS. LINEBAUGH: We just have to re-evaluate

the model based on the pumping capacity of IDOT wells. So it didn't change the model, so it wouldn't effect.

AUDIENCE MEMBER: So it reflects like if the river were at flood stage for much of the year which it could end up being that way next year or the year after given climate change?

MR. SMITH: I could add a little bit more. The IDOT wells are fairly far north here. And when we ran the model as well as looking at the plume, dimension and the geometry it does effect it. It pulls the plume a little bit to the north but it's not nearly enough to pull it all the way to the well. So they're not actually pulling out contaminated water on the site. All they're doing is making our ground water slide a little bit north to like site P there. So -- and that's done under a variety of scenarios in terms of that model. And it's a very robust model. It can run under many different conditions. So my estimation is there's no way even under very extreme cases it could actually pull ground water and actually pull it into our wells. And we do know where the plume is. We have a long history of and some of the maps in the

remedial investigation will show the geometry of that plume. So we know where it is. We know how it's been affected over the many years.

AUDIENCE MEMBER: But you're referring only to the IDOT wells? You're not referring to the proposed relief wells that the Levy District is --

MR. SMITH: That's another issue.

AUDIENCE MEMBER: So how are you taking that into account?

MR. SMITH: You want to speak to the proposed wells?

MS. LINEBAUGH: The Army Corps has proposed installing wells on the Levy for relief and EPA commented on that and they were advised that last year we commented again. So that is our plan to implement those relief wells.

AUDIENCE MEMBER: Have you read their responsiveness summary because they just issued the 401 Water Quality Certification and they pretty much dismissed your recent findings. They're going back to saying what happened years ago rather than what's currently happening.

MR. LAKE: I haven't read the responsive summary. I don't know what they said exactly. I'm

Paul Lake from the Illinois EPA. And they've had a large investigation all along the Levy including the Sauget area here and they are aware of the contaminants in the ground water and, you know, are trying to deal with them the best they can. If they collect the water in the relief wells and they discharge it to the surface water they'd have to make the surface water --

AUDIENCE MEMBER: State of Illinois is saying that it's a quote transfer of water and they're not requiring them to have a discharge permit.

MR. LAKE: Well, that's a Bureau of Water decision. I work in the Bureau of Land so that's news to me. So I will have to talk to them but that would be the standard way, the way I described it is the way it has to happen. You know, in a flood situation there's other issues there. There's other sources of contaminants that are forced into the surface water just due to the pressure from the underground water. So that must be part of their reasoning I imagine.

MS. LINEBAUGH: I just wanted to add real quick that currently what we're proposing for the

area one site is for the soil and ground water source areas and we're also in the process of looking at soil and ground water source areas in the area 2 site down here (indicating) and that the ground water between the two sites will be addressed regionally in a separate RCRA decision. So I think some of your questions are pertaining to the ground water in general and not to what's being proposed today.

AUDIENCE MEMBER: Yeah. It's hard when the river is up the contaminants flow east and when it's down it flows west. So we don't know. Everything is mixing. So to put a line at the top of the land that it's, you know, that it's separate, we don't know what's happening way down below. So I think we need to address this comprehensively rather than, you know, separate.

MS. LINEBAUGH: And that's what we are doing. Regionally we're addressing the ground water between the two sites because there are commingled contaminants but that would be a separate decision document.

AUDIENCE MEMBER: You're proposed -- their proposed IEPA's proposed or not IEPA, the flood

district's processed wells are from 64 to 93 feet and you've got your 30-foot shallow hydrogeologic unit and then all of them seem deeper than the shallow hydrologic unit and some of them are deeper than the middle. And so the potential as you explained it when you're going down and bringing these things up, the potential seems to me that it's very deep since the way you explained it is that it's heavier, the contaminants for the DNAPLs are heavier and go to the bottom. They're like stirring up stuff that is already down there and is not available.

MS. LINEBAUGH: Well, the DNAPLs are in the area one site. What you're speaking of is the levies over closer to the river and that's not going to effect -- the DNAPL is not going to pull the residual DNAPL from the area one site if that's what you're --

AUDIENCE MEMBER: There are no DNAPLs in area two?

MS. LINEBAUGH: Again, this is separate from what we're discussing tonight but there is a DNAPL on site P as well as in the Q south area. That's not going to effect the ground water.

AUDIENCE MEMBER: On the site, the one that you pointed to first, that's very close to the East St. Louis pumping station where they're going to be pumping things to so -- and the relief wells are bringing up the water left standing and it's just traveling above ground on the ground and people -- I see kids walking. There are people -- this is part of comment and I'll get in to that later but that's a concern and I hope it's addressed.

MS. LINEBAUGH: Since some of your questions are pertaining to a different site can I see if there's any other general questions.

AUDIENCE MEMBER: Once the cleanup is completed will the sites be safe for construction?

MS. LINEBAUGH: Well, for the area one sites there currently is for I South is already used and utilized for truck parking. So they would -- the design of the cap would allow for continued use of the truck parking for this facility.

AUDIENCE MEMBER: But for sites that don't have any construction on them?

MS. LINEBAUGH: Well, there will be restrictions for -- with any cap there would be restrictions for going subsurface.

AUDIENCE MEMBER: For each site will they provide the restrictions?

MS. LINEBAUGH: Yeah. Each site will have controls tied to each specific site.

AUDIENCE MEMBER: So at this time you won't know what the restrictions for each site would be?

MS. LINEBAUGH: During the design we'll do more of an instrument control plan that will fully identify those restrictions.

MS. KRAUSE: I'm thinking that maybe we should take a few minute break and then start the public comments. Some of these things will probably be on the record as public comments that we will respond to in the responsiveness summary.

AUDIENCE MEMBER: Can I ask a few more questions. Site H has variant. Is that radioactive? Is that problematic in that respect?

MS. LINEBAUGH: No, it's not. We did a risk assessment for all the sites. There's not a concern with risks associated -- you know what, there might have been some -- actually now I'm remembering some risks associated based on variant but it was based on pathway for direct contact which would be with the implementation of the remedies we could

eliminate that pathway.

MR. MARTIN: Site H.

MS. LINEBAUGH: Site H, yes.

AUDIENCE MEMBER: You said that you're going to send the DNAPLs to be incinerated off site. Where?

MS. LINEBAUGH: Well, they're currently pumping the pulled NAPLs and it's being shipped off site. I don't remember the name of the facility off the top of my head.

MR. MARTIN: I don't know.

AUDIENCE MEMBER: Is it local?

MS. LINEBAUGH: Is it Mobile?

MR. SMITH: I don't recall.

MS. LINEBAUGH: I'm sorry. I don't recall off the top of my head. I could find that out and respond to you. I don't know off the top of my head but it's shipped. It's not local, I don't believe but I don't know.

MS. KRAUSE: Anybody? You want to take just a few minutes?

(Whereupon, there was a break in the proceedings. The testimony resumes as follows:)

MS. KRAUSE: Okay. Whoever would like to make a public comment stand up, say your first and last name, who you're affiliated with, if any, you know, and then our transcriber will take down your comments and it will become part of the record and will become part of our responsive summary on the response list. So anybody want to be first?

AUDIENCE MEMBER: She was taking notes during -- I request that that be put into the official record, any questions and answers from the question period.

MS. KRAUSE: And what's your name?

AUDIENCE MEMBER: I'm sorry. My name is Kathy with a K, Andria, A-N-D-R-I-A. I'm president of the American Bottoms Conservancy. And I'm also conservation chair for the Kaskaskia Group of the CR Club.

MS. KRAUSE: Anybody else.

AUDIENCE MEMBER: I have some more. What if the levy breaches and we have a major flood? The levy project is grossly underestimated at 100-year flood not accounting for climate change and higher river levels due to flood plain development, higher levies upstream, river navigational structures, and

more intense levered events. A peer reviewed scientific report states that a 100 year flood could be some 4 feet higher than what is being proposed by the levy project. Shouldn't you have had an alternative that includes removal of the contaminants from the flood plain? I'm trying to find things that I didn't ask.

You say that a separate OU will be proposed for the contaminated soil, the area wide ground water contamination will be addressed as a separate OU which will be proposed and set forth in a separate ground water run for the Sauget area one and Sauget area two sites. When will that be proposed?

We believe that your exposure assessment should add subsistence fissures, which it has not. It just refers to fissures. And also hikers and wildlife and nature observers.

MS. KRAUSE: Does anybody else -- anybody else like to make a comment?

AUDIENCE MEMBER: Yes, sir. Jack Norman. I hope that in the end you will be able to leave a good description of how the contaminant plume or plumes and three dimensions has been located and

characterized. Seems to me that's a very important part of the process and the public, among others, ought to wind up having confidence that we know what we're talking about.

AUDIENCE MEMBER: There's a wall that I think is site Q -- is it site Q that has a wall?

MS. LINEBAUGH: Site R.

AUDIENCE MEMBER: Site R. Should more walls be constructed to keep contaminants of concern from migrating either from higher river levels of ground water pumping and should that have been an alternative considered? Also, you require the O & M requires quarterly sampling of selected monitoring wells with analysis for VOCs, PCBs and metals and I was wondering if more frequent monitoring would be advisable and also would like to know who would do the sampling? And I would hope there be split samples or EPA oversight on that.

Wouldn't it be advisable to add more wells north of the site because of the IDOT pumping?

One of the things that I asked about was the incineration and we do have a hazardous waste incinerator in Sauget and that's why I asked where it would -- where your DNAPLs would go. And I

wanted to put on the record that recently VIOLIA received a finding of violation in August 2012 for violations of the Clean Air Act after an on-site compliance investigation conducted by EPA's National Enforcement Investigation Center in December 2011. EPA found significant problems with Veolia's feed stream analysis where a high percentage of Veolia's waste profiles were found to be inaccurate. In some of the waste profiles Veolia estimated the actual metals concentration -- underestimated the actual metals concentration in the way stream. Inspectors also found that Veolia used generic waste profiles for waste streams that contain volatile and semi-volatile metals. The use of overly broad standard profiles leads to incorrect metals concentration being used to calculate the feed rates for the incinerators. They also used several profiles that used metals concentration identical to those used in other profiles which according to EPA is statistically unlikely. Veolia has a history of violation and its non-compliance and their past record offers no basis to expect satisfactory performance in the future. I would really like for the agency to -- to not consider sending what you're

finding, the toxins at Sauget area one, to the Veolia incinerator.

MS. KRAUSE: Anybody else for comments.

AUDIENCE MEMBER: I'm Shawn Abernathy. I represent the Laborers Local 100. Having territorial jurisdiction to the sites in question my members have been involved in other sites in the area including Dead Creek and site 2 slurry wall project. My members not only have a vested interest in ensuring that the project is done and performed in a responsible manner but are also interested in securing the jobs that come with it. My members exceed all the training standards and experience required in this field. It is my hope that my members be given -- be given a chance, you know, to work on the project.

MS. KRAUSE: Anybody? Thank you. Anybody else?

AUDIENCE MEMBER: I very much appreciate that you had this public hearing and we are really very grateful to all the people that are putting in their time and we are also grateful to Solutia for stepping up and being proactive in working on identifying the chemicals and coming up with

solutions. I really don't know, I think that there are other PRPs in there and we're trying to determine whether if the levy districts get involved and bring up contaminants whether they would be a potential PRP. Everybody thinks it's an interesting question but we don't have a legal opinion yet. But I appreciate the work and thank you for holding the hearing and for allowing us to make our comments and answering my questions especially.

MS. KRAUSE: I'm going to say the public hearing is ended. And thank you for coming and thank you Village of Cahokia for this really great facility. We appreciate it. Thank you.

(Off the record at 7:45 p.m.)

State of Illinois

SS.

County of Madison

I, Mary L. Peppenhorst, a Certified Court Reporter in and for the State of Illinois, duly commissioned, qualified and authorized I hereby certify that I was attended at the offices of Cahokia Village Hall, 103 Main Street, in the City of Cahokia, State of Illinois, by the aforesaid parties; on the 5th day of March, 2013.

Said public and EPA comments being by me reported in shorthand and caused to be transcribed into typewriting, and that the foregoing pages correctly set forth the comments of the aforementioned, together with the questions propounded and remarks thereto, and is in all respects a full, true, correct and complete transcript of the questions and propounded to and the answers and comments given by attendees.

I further certify that I am not of counsel or attorney for any of the parties, not related to nor interested in any of the parties or their attorneys.

Completed this 10th day of March, 2013.

Mary L. Peppenhorst

Missouri Certified Court Reporter

Illinois Certified Shorthand Reporter

Registered Professional Reporter

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